



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0296; Directorate Identifier 2012-NM-102-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to certain Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. The existing AD currently requires revising the airworthiness limitations section of the Instructions for Continued Airworthiness of the maintenance requirements manual (MRM) by incorporating procedures for repetitive functional tests of the pilot input lever of the pitch feel simulator (PFS) units and new repetitive functional tests of the pilot input lever of the PFS unit, and corrective actions if necessary; and, after initiating the new tests, removing of the existing procedures for the repetitive functional tests from the MRM. The existing AD was prompted by a report that the shear pin located in the input lever of two PFS units failed due to fatigue. Since we issued that AD, a new re-designed PFS unit has been developed, which eliminates the need for repetitive inspections. This proposed AD would require replacing certain PFS units with the new redesigned PFS unit. This proposed AD would also remove certain airplanes from the applicability and add certain airplanes to the applicability. We are proposing this AD to

prevent undetected failure of the shear pins of both PFS units simultaneously, which could result in loss of pitch feel forces and consequent reduced control of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0296; Directorate Identifier 2012-NM-102-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On March 31, 2008, we issued AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008). That AD required actions intended to address an unsafe condition on the products listed above.

Since we issued AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008), Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2005-41R1, dated May 10, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

The shear pin in the input lever of several Pitch Feel Simulators (PFS) units has failed due to fatigue. The shear pin failure is not always detectable by the flight crew in normal operation. Failure of the shear pins in both PFS units on an aeroplane could result in loss of pitch feel forces and reduced controllability of the aeroplane.

Recently, Transport Canada has certified the new design of the PFS unit – part number (P/N) 601R92300-7 as a terminating action. Revision 1 of this [TCCA] AD mandates the retrofit of all in-service CL-600-2B19 aeroplanes with the redesigned PFS unit.

Required actions include replacing the PFS units having part number (P/N) 601R92300-3 or 601R92300-5 with PFS units having P/N 601R92300-7, which would terminate the

actions required by AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008). This proposed AD also adds airplanes having serial numbers (S/Ns) 7991 through 7999 inclusive, and removes airplanes having S/Ns 8112 and subsequent. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Bombardier, Inc. has issued Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006; and Service Bulletin 601R-27-139, Revision A, dated May 28, 2012. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 574 products of U.S. registry.

The actions that are required by AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008), and retained in this proposed AD take about 2 work-hours per product, at an average labor rate of \$85 per work hour. Required parts cost about \$0 per product. Based on these figures, the estimated cost of the currently required actions is \$170 per product.

We estimate that it would take about 8 work-hours per product to comply with the new basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$2,500 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$1,825,320, or \$3,180 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the

Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008), and adding the following new AD:

Bombardier, Inc.: Docket No. FAA-2013-0296; Directorate Identifier 2012-NM-102-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008).

(c) Applicability

This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial numbers (S/Ns) 7003 through 8111 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Reason

This AD was prompted by a report that the shear pin located in the input lever of two pitch feel simulator (PFS) units failed due to fatigue. We are issuing this AD to prevent undetected failure of the shear pins of both PFS units simultaneously, which could result in loss of pitch feel forces and consequent reduced control of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Retained Revision of Airworthiness Limitations (AWL) Section of Maintenance Requirements Manual

This paragraph restates the requirements of paragraph (f) of AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008). For airplanes having S/Ns 7003 through 7990 inclusive: Within 14 days after February 13, 2004 (the effective date of AD 2004-02-07, Amendment 39-13442 (69 FR 4234, January 29, 2004), which was superseded by AD 2006-05-11 R1, Amendment 39-14528 (71 FR 15323, March 28, 2006)), revise the AWL section of the Instructions for Continued Airworthiness of the maintenance requirements manual by incorporating the functional check of the PFS pilot input lever, Task R27-31-A024-01, as specified in Bombardier Temporary Revision (TR) 2B-1784, dated October 24, 2003, to the CL-600-2B19 Canadair Regional Jet Maintenance Requirements Manual, Part 2, Appendix B, “Airworthiness Limitations,” into the AWL section.

(h) Retained Functional Test of Input Lever with Revised Service Information

This paragraph restates the requirements of paragraph (g) of AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008), with revised service information. For airplanes having S/Ns 7003 through 7990 inclusive, and S/Ns 8000 through 8111 inclusive: Before the accumulation of 4,000 total flight hours, or within 100 flight hours after March 27, 2006 (the effective date of AD 2006-05-11 R1, Amendment 39-14528 (71 FR 15323, March 28, 2006), whichever occurs later, do a functional test of the pilot input lever of the PFS units to determine if the lever is disconnected, in accordance with the Accomplishment Instructions of a service bulletin specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD. Repeat the test at intervals not to exceed 100 flight hours. Accomplishing the initial functional test terminates the requirements of paragraph (g) of this AD and the repetitive functional check of the PFS pilot input lever, Task R27-31-A024-01, as specified in the AWL section of the Instructions for Continued Airworthiness of CL-600-2B19 Canadair Regional Jet Maintenance Requirements Manual. As of the effective date of this AD, only Bombardier Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006, may be used to accomplish the actions required by this paragraph.

(1) Bombardier Alert Service Bulletin A601R-27-144, Revision A, dated February 14, 2006, including Appendix A, dated September 15, 2005.

(2) Bombardier Alert Service Bulletin A601R-27-144, Revision B, dated December 20, 2006, including Appendix A, Revision A, dated December 20, 2006.

(3) Bombardier Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006.

(i) Retained Replacement with Revised Service Information

This paragraph restates the requirements of paragraph (h) of AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008), with revised service information. If any lever is found to be disconnected during any functional test required by paragraph (h) of this AD, before further flight, replace the defective PFS unit with a serviceable PFS unit, in accordance with the Accomplishment Instructions of a service bulletin specified in paragraph (i)(1), (i)(2), or (i)(3) of this AD. As of the effective date of this AD, only Bombardier Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006, may be used to accomplish the actions required by this paragraph.

(1) Bombardier Alert Service Bulletin A601R-27-144, Revision A, dated February 14, 2006, including Appendix A, dated September 15, 2005.

(2) Bombardier Alert Service Bulletin A601R-27-144, Revision B, dated December 20, 2006, including Appendix A, Revision A, dated December 20, 2006.

(3) Bombardier Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006.

(j) New Functional Test of Input Lever

For airplanes having S/Ns 7991 through 7999 inclusive: At the later of the times specified in paragraphs (j)(1) and (j)(2) of this AD, do a functional test of the pilot input lever of the PFS units to determine if the lever is disconnected, in accordance with the

Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006. Repeat the test thereafter at intervals not to exceed 100 flight hours. Accomplishing the initial functional test specified in this paragraph terminates the requirements of paragraph (g) of this AD and the repetitive functional check of the PFS pilot input lever, Task R27-31-A024-01, as specified in the AWL section of the Instructions for Continued Airworthiness of CL-600-2B19 Canadair Regional Jet Maintenance Requirements Manual.

(1) Before the accumulation of 4,000 total flight hours.

(2) Within 100 flight hours from the effective date of this AD.

(k) New Replacement of Defective Pitch Feel Simulator Unit

For airplanes having S/Ns 7991 through 7999 inclusive: If any disconnected lever is found to be detected during any functional test required by paragraph (j) of this AD, before further flight, replace the defective PFS unit with a serviceable PFS unit, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006.

(l) New Replacement of Pitch Feel Simulator Units

At the applicable time specified in paragraph (l)(1), (l)(2), (l)(3), or (l)(4) of this AD: Replace PFS units having part number (P/N) 601R92300-3 or 601R92300-5, with PFS units having P/N 601R92300-7, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-139, Revision A, dated May 28, 2012.

Accomplishment of the replacement required by this paragraph terminates the requirements of paragraphs (g), (h), (i), (j), and (k) of this AD, and does not alter the approved maintenance program for the new redesigned PFS unit P/N 601R92300-7.

(1) For PFS units having P/N 601R92300-3 or 601R92300-5 that have accumulated less than 18,000 total flight hours as of the effective date of this AD: Within 6,000 flight hours after the effective date of this AD, but not to exceed 23,000 total flight hours on the PFS unit, or within 36 months after the effective date of this AD, whichever occurs first.

(2) For PFS units having P/N 601R92300-3 or 601R92300-5 that have accumulated more than or equal to 18,000 total flight hours but less than 19,000 total flight hours as of the effective date of this AD: Within 5,000 flight hours after the effective date of this AD, but not to exceed 23,000 total flight hours on the PFS unit, or within 30 months after the effective date of this AD, whichever occurs first.

(3) For PFS units having P/N 601R92300-3 or 601R92300-5 that have accumulated more than or equal to 19,000 total flight hours but less than 20,000 total flight hours as of the effective date of this AD: Within 4,000 flight hours after the effective date of this AD, but not to exceed 23,000 total flight hours on the PFS unit, or within 24 months after the effective date of this AD, whichever occurs first.

(4) For PFS units having P/N 601R92300-3 or 601R92300-5 that have accumulated more than or equal to 20,000 total flight hours as of the effective date of this AD: Within 3,000 flight hours or 18 months, after the effective date of this AD, whichever occurs first.

(m) Credit for Previous Actions

(1) This paragraph provides credit for the actions required by paragraphs (h) and (i) of this AD, if those actions were performed before the effective date of this AD using a service bulletin identified in paragraph (m)(1)(i) or (m)(1)(ii) of this AD.

(i) Bombardier Alert Service Bulletin A601R-27-144, Revision C, dated July 21, 2008, including Appendix A, dated December 20, 2006, which is not incorporated by reference in this AD.

(ii) Bombardier Alert Service Bulletin A601R-27-144, Revision D, dated December 22, 2011, including Appendix A, dated December 20, 2006, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for replacement of the PFS units required by paragraph (l) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 601R-27-139, dated December 22, 2011, which is not incorporated by reference in this AD.

(3) This paragraph provides credit for the actions required by paragraph (h) of this AD, if those actions were performed before March 27, 2006 (the effective date of AD 2006-05-11 R1, Amendment 39-14528 (71 FR 15323, March 28, 2006)), using Bombardier Alert Service Bulletin A601R-27-144, Revision B, dated December 20, 2006, including Appendix A, Revision A, dated December 20, 2006.

(4) This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before May 19, 2008 (the effective date of AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008)), using Bombardier Alert Service Bulletin A601R-27-144, Revision B, dated December 20, 2006, including Appendix A, Revision A, dated December 20, 2006.

(n) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. Send information to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD. AMOCs approved previously in accordance with AD 2008-08-09, Amendment 39-15461 (73 FR 19979, April 14, 2008), are approved as AMOCs for the corresponding provisions of paragraphs (g), (h), and (i) of this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(o) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2005-41R1, dated May 10, 2012, and the service bulletins specified in paragraphs (o)(1)(i) through (o)(1)(v) of this AD, for related information.

(i) Bombardier Alert Service Bulletin A601R-27-144, Revision A, dated February 14, 2006, including Appendix A, dated September 15, 2005.

(ii) Bombardier Alert Service Bulletin A601R-27-144, Revision B, dated December 20, 2006, including Appendix A, Revision A, dated December 20, 2006.

(iii) Bombardier Alert Service Bulletin A601R-27-144, Revision E, dated October 2, 2012, including Appendix A, Revision A, dated December 20, 2006.

(iv) Bombardier Service Bulletin 601R-27-139, Revision A, dated May 28, 2012.

(v) Bombardier Temporary Revision (TR) 2B-1784, dated October 24, 2003, to the CL-600-2B19 Canadair Regional Jet Maintenance Requirements Manual, Part 2, Appendix B, “Airworthiness Limitations.”

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on March 28, 2013.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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